

Docket No. 60687 (46865)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Kusk, Phillip

SERIAL NO.: 09/889,491

GROUP NO.: 1634

FILED: February 5, 2002

EXAMINER: Switzer, Juliet C.

FOR: GENETIC PREDISPOSITION

Mail Stop Non-Fee Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service as Express Mail No. _____ in an envelope addressed to the: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on _____.

By: _____
Patricia A. Barnes

Sir: _____

DECLARATION OF PHILLIP KUSK UNDER 37 CFR 1.132

I, Phillip Kusk, declare as follows:

1. I have read the above-identified application (hereafter "subject application") of which I am the inventor.

2. I currently hold the position of Res. Sci. at NsGene in Copenhagen.

USSN 09/889,491
Pg. 2

3. As I understand it, the subject application discloses and claims, among other things, a method of assessing an individual's predisposition to a selected calcification status which includes the step of determining the genotype of a promoter of the bone sialoprotein (BSP1I) gene. More specifically, the method analyzes allelic variation in the promoter and relates the variation to the predisposition.

4. I reviewed the Patent Office Action ("Office Action") dated January 2, 2004 that issued in connection with the subject application. As I understand the Office Action, the patent Examiner rejected certain claims as indefinite for reciting certain accession numbers from the Genbank database. I am familiar with the contents and use of that database particularly as it relates to the BSP1I gene and related sequences disclosed throughout my patent specification.

5. I have been asked to state the identity of sequences referred to by the following Genbank accession numbers: L24756, M55270, D14813, and AB008821. The accession numbers refer to specific sequences and are featured throughout my patent specification as well as pending claims 25-30. I have been further asked to state whether or not those sequences are identical to those available to me from the Genbank database at the time the above-referenced application was filed.

6. Attached as **Appendix A** is a list of the sequences referred to by the Genbank accession nos. L24756, M55270, D14813, and AB008821. The list shows, among other things, the chemical identity of each of the sequences including the length of each sequence and positions of each base pair.

7. Referring now to **Appendix A**, I state that each of the sequences shown as Genbank accession nos. L24756, M55270, D14813, and AB008821 was available to me as a Genbank record no later than January 18, 1999; the earliest priority date of the above-captioned application.


USSN 09/889,491

Pg. 2

8. I further state that the base pair positions of each the sequences shown in Appendix A as Genbank accession nos. L24756, M55270, D14813, and AB008821 corresponds to the base pair positions referred to throughout my patent specification for the same accession number.

9. For instance, pending claim 25 features two sequences (SEQ ID Nos. 18 and 13) that occur about base pair 1496 of the BSP11 gene promoter (Genbank accession number L24756). Those same sequences can be seen in about the same position in Appendix A as Genbank accession no. L24756. Additionally, pending claim 28 features two sequences (SEQ ID Nos. 23 and 24) that occur at about base pair 163 of the gene having accession number AB008821. Those same sequences can be seen in about the same position in Appendix A as Genbank accession number AB008821.

10. I hereby further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 26/3/04
Phillip Kusk

Doc. 451679

APPENDIX A - Pg. 1 of 11

BSPII

ID HSDNSP01 standard; genomic DNA; HUM; 2415 BP.
XX
AC L24756; L06823;
XX
SV L24756.1
XX
DT 13-JAN-1994 (Rel. 38, Created)
DT 30-JUN-1999 (Rel. 60, Last updated, Version 3)
XX
DE Human bone sialoprotein (BSP) gene, exon 1.
XX
KW sialoprotein.
XX
OS Homo sapiens (human)
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia;
OC Eutheria; Primates; Catarrhini; Hominidae; Homo.
XX
RN [1]
RP 1-2415
RX MEDLINE; 94340202.
RX PUBMED; 8061919.
RA Kim R.H., Shapiro H.S., Li J.J., Wranu J.L., Sodek J.;
RT "Characterization of the human bone sialoprotein (BSP) gene and its
RT promoter sequence";
RL Matrix Biol. 14(1):31-40(1994).
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FH Key Location/Qualifiers
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XX
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APPENDIX A - Pg. 2 of 11

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MGP

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ID HSMGPA standard; genomic DNA; HUM; 7734 BP.
XX
AC M55270; J05572;
XX
SV M55270.1
XX
DT 21-NOV-1990 (Rel. 25, Created)
DT 02-JUL-1999 (Rel. 60, Last updated, Version 4)
XX
DE Human matrix Gla protein (MGP) gene, complete cds.
XX
KW matrix Gla protein; vitamin K-dependent protein.
XX
OS Homo sapiens (human)
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia;
OC Eutheria; Primates; Catarrhini; Hominidae; Homo.
XX
RN [1]
RP 1-7734
RX MEDLINE; 90368682.
RX PUBMED; 2394711.
RA Cancela L., Haieh C.L., Francke U., Price P.A.;
RT "Molecular structure, chromosome assignment, and promoter organization of
RT the human matrix Gla protein gene";
RL J. Biol. Chem. 265(25):15040-15048(1990).
XX
RN [2]
RP 1-7734
RA Price P.A.;
RT ;
RL submitted (20-NOV-1990) to the EMBL/GenBank/DBJ databases.
RL Department of Biology, University of California-San Diego, La Jolla, CA
RL 92093
XX
DR GDB; 126860; MGP.
DR GOA; P08493.
DR SWISS-PROT; P08493; MGP_HUMAN.
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APPENDIX A - Pg. 3 of 11

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SQ
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APPENDIX A - Pg. 4 of 11

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APPENDIX A -- Pg. 5 of 11

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DT 03-JUN-2002 (Rel. 72, Last updated, version 7)
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OC Eutheria; Primates; Catarrhini; Hominidae; Homo.
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RA Yamamoto S.;
RT
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RL Shunsuke Yamamoto, Oita Medical University, Department of Pathology;
RL Hasama-machi, Oita 879-55, Japan (Tel:0975-49-4411(ex.2690),
RL Fax:0975-86-5690)
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RN [2]
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RT "Cloning and characterization of the human osteopontin gene and its
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RL Biochem. J. 303:255-262(1994).
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CC Submitted (26-MAR-1993) to DDBJ by:
CC Shunsuke Yamamoto
CC Department of Pathology
CC Oita Medical University
CC 1-1 Idaigakko, Hasama-machi
CC Oita Gun, Oita 879-56
CC Japan
CC Phone: 0975-49-4411 x2690
CC Fax: 0975-49-4217
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FH Key Location/Qualifiers

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APPENDIX A - Pg. 6 of 11

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APPENDIX A - Pg. 7 of 11

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APPENDIX A - Pg. 8 of 11

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APPENDIX A - Pg. 9 of 11

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APPENDIX A - Pg. 10 of 11

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OPG

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AC AB008821;
XX
SV AB008821.1
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DT 06-AUG-1998 (Rel. 56, Created)
DT 07-AUG-1998 (Rel. 56, Last updated, Version 2)
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DE Homo sapiens gene for osteoclastogenesis inhibitory factor, exon 1.
XX
KW osteoclastogenesis inhibitory factor.
XX
OS Homo sapiens (human)
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia;
OC Eutheria; Primates; Catarrhini; Hominidae; Homo.
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RT ;
RL Submitted (13-NOV-1997) to the EMBL/GenBank/DBJ databases.
RL Tomonori Morinaga, Snow Brand Milk Products Co., Ltd., Research Institute
RL of Life Science, 519 Shimo-Ishibashi, Ishibashi-machi, Tochigi 329-0512,
RL Japan (E-mail:fvbd7042@mb.infoweb.or.jp, Tel:0285-52-1331,
RL Fax:0285-53-1314)
XX
RN [2]
RP 1-1681
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RX PUBMED; 9888283.
RA Morinaga T., Nakagawa N., Yasuda H., Tsuda E., Higashio K.;
RT "Cloning and characterization of the gene encoding human
RT osteoprotegerin/osteoclastogenesis-inhibitory factor";
RL Eur. J. Biochem. 254(3):685-692(1998).
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DR SWISS-PROT; Q00300; T11B_HUMAN.
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APPENDIX A - Pg. 11 of 11

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